CLAIMS

1. A process for production of a high-purity epoxy compound with total chlorine content of less than 500 ppm, characterized in that an epoxy compound represented by the following general formula (I):

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(wherein, R represents a dihydric phenol compound residue and/or a dihydric alcohol compound residue; and n represents a numerical value with the average greater than 0 and not greater than 10), in which the proportion of the component having n equal to 0 is more than 70% and less than 100%, is caused to react in the presence of alkali metal hydroxide at temperature of 95°C ~ 150°C, to produce an epoxy compound represented by the following general formula (II):

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[wherein, R represents a dihydric phenol compound residue and/or a dihydric alcohol compound residue; n represents a numerical value with the average greater than 0 and not greater than 10; and X is a hydrogen atom or a group represented by the following general formula (III):

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(wherein, R has the above-described meaning)], in which the component with X represented by the general formula (III) is always contained.

2. A process for production of a high-purity epoxy

compound according to claim 1, wherein the manufactured epoxy compound consists of the epoxy compound represented by the general formula (I) in the proportion of not less than 90% and less than 100%, and the epoxy compound represented by the general formula (II) in the proportion of greater than 0% and not greater than 10%.

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- 3. A process for production of a high-purity epoxy compound according to claim 1 or 2, wherein said alkali metal hydroxide is potassium hydroxide.
- 4. A process for production of a high-purity epoxy compound according to any one of claims 1 to 3, wherein 5 ~ 100 g of potassium hydroxide is used per 1 kg of the epoxy resin represented by said general formula (I), and is used in the reaction in the form of aqueous solution of potassium hydroxide of 80% or higher in concentration.
 - 5. A process for production of a high-purity epoxy compound according to any one of claims 1 to 4, wherein the reaction is conducted in the presence of a tertiary alcohol.
- 6. A process for production of a high-purity epoxy compound according to any one of claims 1 to 5, wherein said epoxy compound represented by the general formula (I) is an epoxy compound represented by the following general formula (IV):

$$\begin{array}{c} O \\ O \\ H_{2}C \end{array} \xrightarrow{CH} \begin{array}{c} CH \\ CH_{2} \end{array} \xrightarrow{R_{5}} \begin{array}{c} R_{7} \\ R_{7} \\ R_{2} \end{array} \xrightarrow{R_{6}} \begin{array}{c} R_{7} \\ R_{8} \end{array} \xrightarrow{R_{4}} \begin{array}{c} OH \\ CH \\ H_{2} \end{array} \xrightarrow{CH} \begin{array}{c} CH \\ CH_{2} \end{array} \xrightarrow{R_{5}} \begin{array}{c} R_{7} \\ R_{1} \\ R_{2} \end{array} \xrightarrow{R_{5}} \begin{array}{c} R_{7} \\ R_{2} \end{array} \xrightarrow{R_{6}} \begin{array}{c} R_{8} \\ R_{8} \end{array} \xrightarrow{R_{4}} \begin{array}{c} CH \\ CH_{2} \end{array} \xrightarrow{CH} \xrightarrow{CH} \begin{array}{c} CH \\ CH_{2} \end{array} \xrightarrow{CH} \xrightarrow{CH} \begin{array}{c} CH \\ CH_{2} \end{array} \xrightarrow{R_{5}} \begin{array}{c} R_{7} \\ R_{2} \end{array} \xrightarrow{R_{6}} \begin{array}{c} R_{8} \\ R_{8} \end{array} \xrightarrow{R_{4}} \begin{array}{c} CH \\ CH_{2} \end{array} \xrightarrow{CH} \xrightarrow{CH}$$

[wherein, $R_1 \sim R_8$ may be same or different, and each of $R_1 \sim R_8$ is a hydrogen, alkyl, allyl, phenyl group or halogen atom; Y represents a direct bond or alkyl group with carbon number of $1 \sim 20$, allyl, phenyl, aralkyl, biphenylaralkyl, oxygen, sulphur, sulfone, or carboxyl group; and n is a numerical value with average greater

than 0 and not greater than 10] and /or an epoxy compound represented by the following general formula (V):

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$$\begin{array}{c} O \\ O \\ H_{2}C \\ \end{array} \begin{array}{c} CH \\ CH_{2} \\ \end{array} \begin{array}{c} CH \\ R_{2} \\ R_{6} \\ \end{array} \begin{array}{c} OH \\ CH \\ H_{2} \\ \end{array} \begin{array}{c} OH \\ CH \\ CH_{2} \\ \end{array} \begin{array}{c} CH \\ CH_{2} \\ R_{2} \\ R_{6} \\ \end{array} \begin{array}{c} CH \\ CH_{2} \\ R_{2} \\ R_{6} \\ \end{array} \begin{array}{c} CH \\ CH_{2} \\ CH_{2} \\ CH_{2} \\ CH_{2} \\ \end{array} \begin{array}{c} CH \\ CH_{2} \\ CH_{2}$$

[wherein, R_1 , R_2 , R_5 , and R_6 represent hydrogen, alkyl, allyl, phenyl group, or halogen atom, and may be same or different; and n is a numerical value with average greater than 0 and not greater than 10].

- 7. A process for production of a high-purity epoxy compound according to any one of claims 1 to 6, wherein said epoxy compound represented by the general formula (IV) is a tetramethyl bisphenol type epoxy resin or a tetramethyl biphenyl type epoxy resin
- 8. A high purity epoxy resin composition which contains, as essential components, the high-purity epoxy compound obtained by the manufacturing method according to any one of claims 1 to 7 and a curing agent for epoxy resins.
- 9. A high purity epoxy resin composition for use as sealing material for electronic parts, which contains, as essential components, the high-purity epoxy compound obtained by the manufacturing method according to any one of claims 1 to 7 and a curing agent for epoxy resins.
- 10. A hardened product which is obtained by curing the epoxy resin composition according to claim 8 or 9.